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EXAMINER	
ROBERTS, JESSICA M	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/506,428	SUZUKI, YOSHINORI	
	Examiner	Art Unit	
	JESSICA ROBERTS	2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08/28/2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *23-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *23-26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Acknowledgement of Amendments

1. Applicant's arguments with respect to claims 23-26 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 25-26 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. There is no support in the specification for predetermined adjacent blocks. Note: It is important that the applicant and/or applicant's representative identify where these claimed limitations are supported by the original specification of this instant application for proper claim interpretation and analysis.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 23-25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

6. Claim 23 claims "...in said prediction mode without motion vector decoding: selecting ,from among multiple candidate reference frames, a frame(s) to be referenced in the prediction mode; determining motion vector information to be used in the prediction mode.." It is unclear to the examiner if the "said prediction mode without motion vectors" is the same prediction mode as ..."determining motion vector information in the prediction mode".

As understood by the examiner, the prediction modes are two different modes.

Claim Rejections - 35 USC § 101

7. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim(s) 23-26 is/are rejected under 35 U.S.C. 101 as not falling within one of the four statutory categories of invention. Supreme Court precedent[1] and recent Federal Circuit decisions[2] indicate that a statutory "process" under 35 U.S.C. 101 must (1) be tied to another statutory category (such as a particular apparatus), or (2) transform underlying subject matter (such as an article or material) to a different state or thing. While the instant claim(s) recite a series of steps or acts to be performed, the claim(s) neither transform underlying subject matter nor positively tie to another statutory category that accomplishes the claimed method steps, and therefore do not qualify as a

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[1] *Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972); *Cochrane v. Deener*, 94 U.S. 780, 787-88 (1876).

[2] *In re Bilski*, 88 USPQ2d 1385 (Fed. Cir. 2008).

statutory process. For example there is no device claimed to perform the limitations as claimed.

Double Patenting

8. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

9. Claim 23 is objected to under 37 CFR 1.75 as being a substantial duplicate of claims 24-25. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

10. Applicant is advised that should claim 23 be found allowable, claims 24 and 25 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

11. Claim 23 is provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claim 1 of copending Application No. 11/932,110. Although the

conflicting claims are not identical, they are not patentably distinct from each other because claim 23 is generic to all that is recited in claim 1 of co-pending application 11/932,110. That is, claim 23 is anticipated by claim 1 of co-pending application 11/932,110.

12. Claim 23 is provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claim 1 of copending Application No. 11/932,071. Although the conflicting claims are not identical, they are not patentably distinct from each other because claim 23 is generic to all that is recited in claim 1 of co-pending application 11/932,071. That is, claim 23 is anticipated by claim 1 of co-pending application 11/932,071.

13. Claim 23 is provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claim 1 of copending Application No. 11/931978. Although the conflicting claims are not identical, they are not patentably distinct from each other because claim 23 is generic to all that is recited in claim 1 of co-pending application 11/931. That is, claim 23 is anticipated by claim 1 of co-pending application 11/932,071.

14. Claim 23 is provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claim 1 of co-pending Application No. 11/931,908. Although the conflicting claims are not identical, they are not patentably distinct from each other because claim 23 in the instant application is substantially the same as claim 1 in co-pending Application No. 11/931,908 with the exception of encoding, it would have been an obvious modification to the instant application to get claim 1 of co-pending Application No. 11/931,908.

15. Claim 23 is provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claim 2 of co-pending Application No. 11/932,110. Although the conflicting claims are not identical, they are not patentably distinct from each other because claim 23 in the instant application is substantially the same as claim 1 in co-pending Application No. 11/932,110 with the exception of encoding, it would have been an obvious modification to the instant application to get claim 2 of co-pending Application No. 11/932,110.

16. Claim 23 is provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claim 3 of co-pending Application No. 11/932,110. Although the conflicting claims are not identical, they are not patentably distinct from each other because claim 23 in the instant application is substantially the same as claim 3 in co-pending Application No. 11/931,908 with the exception of encoding, it would have been an obvious modification to the instant application to get claim 3 of co-pending Application No. 11/932,110.

17. Claim 23 is provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claim 4 of co-pending Application No. 11/932,110. Although the conflicting claims are not identical, they are not patentably distinct from each other because claim 23 in the instant application is substantially the same as claim 4 in co-pending Application No. 11/931,908 with the exception of encoding, it would have been an obvious modification to the instant application to get claim 4 of co-pending Application No. 11/932,110.

18. Claims 24-25 are also provisionally rejected for the reasons set forth for claim 23 with respect to co-pending Application No.11/932,110; 11/932,071; 11/931,978; and 11/931,908.

Claim Rejections - 35 USC § 103

19. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

20. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

21. Claims 23-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Snook et al., US-6,654,420 and further in view of Fukuhara et al., US-5,926,225.

1. Regarding **claim 23,** Snook teaches A moving picture decoding method which generates a predicted image using information on motion vectors and information on reference frames, the moving picture decoding method having a prediction mode without motion vector decoding, comprising: in said prediction mode without motion vector decoding (direct prediction mode, fig. 2) : selecting, from among multiple candidate reference frame(s)to be referenced to in the prediction mode (Snook teaches

a strategy for the choice of the prediction mode to be used in the encoding of a block Y of the picture P1. Further taught is an additional step allowing to decide which prediction mode to choose fro the encoding of the block Y among forward, backward and bidirectional ones, pg. 5 col. 26-30. Further taught is motion estimation consists of the derivation of the minimum of the function SAD between the block Y and candidates macroblocks belonging to the frame P2 using Equation (1), pg. 5 line 31-33. Since Snook discloses performing motion estimation between candidate macroblocks, it is clear to the examiner that Snook selects the frames from the candidate blocks, which reads upon the claimed limitation); and determining motion vector information to be used in the prediction mode (Snook discloses where SADfwd, SADbck, and SADbidir represent the respective errors resulting from a forward, backward, and bidirectional prediction of the block Y. In this preferred embodiment of the invention, the block Y is encoded according to the prediction mode giving the smallest error (pg. 6 line 8-11), based on whether adjacent blocks adjacent to a current block in a current frame, have a motion vector (Snook discloses a backward motion estimation of the block Y on the basis of the future reference frame P2 is performed in a step 7. This motion estimation consists of the derivation of the minimum of the function SAD between the block Y and candidates macroblocks belonging to the frame P2 using Equation (1). Since Snook discloses performing motion estimation that consists of a SAD function between macroblocks, it is clear to the examiner that in order to compute the motion vector, the block would be neighboring or adjacent to one another, which reads upon the claimed limitation). Snook is silent in regards to performing moving picture decoding by

generating said predicted image using information on said selected reference frame(s) and the motion vector information in said prediction mode.

2. However, Fukuhara performing moving picture decoding by generating said predicted image using information on said selected reference frame(s) and the motion vector information in said prediction mode (fig. 18).

3. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of Fukuhara with Snook for providing high quality decoded images, column 2 line 49-51.

4. As to **claim 24,** which is substantially the same as claim 23, thus the rejection and analysis made in claim 23 also applies here.

5. Claims 25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Snook et al., US-6, 654,420 in view of Fukuhara et al., US-5,926,225 and further in view of Zaccarin et al., US-5,210,605.

6. As to **claim 25,** which is substantially the same as claim 23, in addition to decoding of the motion-vector-less block of the motion-vector-less prediction mode; predetermined adjacent blocks. However, as understood by the examiner, a motion-vector-less prediction mode is a prediction mode without motion vector decoding. Therefore, the rejection and analysis made in claim 23 applies here for common subject matter. Snook is silent in regards to predetermined adjacent blocks.

7. However, Zaccarin teaches the motion vector of a light block is estimated using the motion vectors of predetermined neighboring dark blocks, column 10 line 26-31 and fig. 10-11.

8. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of Zaccarin with Snook (modified by Fukuhara) for improved image quality.

9. As to **claim 26**, Snook (modified by Fukuhara and Zaccarin) as a whole teaches everything as claimed above, see claim 25. Snook is silent in regards to a moving picture decoding method as claimed in claim 25, wherein the motion vector information is a motion vector derived from at least one motion vector of the predetermined adjacent blocks of the same frame.

10. However, Zaccarin teaches wherein the motion vector information is a motion vector derived from at least one motion vector of the predetermined adjacent blocks of the same frame (Zaccarin teaches the motion vector of a light block is estimated using the motion vectors of predetermined neighboring dark blocks, column 6 line 26-31 and fig. 10-11. Further disclosed is block based motion estimation is used to determine motion vectors for blocks of pixels in a current frame or field (abstract). Since Zaccarin discloses where block estimation is used to determine motion vectors for blocks of pixels in a current frame or field, and discloses that the motion vector of a light block is estimated using the motion vectors of predetermined neighboring dark blocks, it is clear to the examiner that Zaccarin discloses to determine the motion vectors using predetermined adjacent blocks in the current frame, which reads upon the claimed limitation).

11. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of Zaccarin with Snook (modified by Fukuhara) for providing improved image quality.

Examiners Note

The referenced citations made in the rejection(s) above are intended to exemplify areas in the prior art document(s) in which the examiner believed are the most relevant to the claimed subject matter. However, it is incumbent upon the applicant to analyze the prior art document(s) in its/their entirety since other areas of the document(s) may be relied upon at a later time to substantiate examiner's rationale of record. A prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. W.L. Gore & associates, Inc. v. Garlock, Inc., 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984). However, "the prior art's mere disclosure of more than one alternative does not constitute a teaching away from any of these alternatives because such disclosure does not criticize, discredit, or otherwise discourage the solution claimed...." In re Fulton, 391 F.3d 1195, 1201, 73 USPQ2d 1141, 1146 (Fed. Cir. 2004).

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

13. Suzuki et al., US-7, 020,196 B2 Content Supplying Apparatus and Method, and Recording Medium

14. Odaka et al., US-5,467,136 Video Decoder for Determining A Motion Vector From A Scaled Vector and A Difference Vector

15. Suzuki et al., US-6, 535,558 Picture Signal Encoding Method and Apparatus, Picture Signal Decoding Method and Apparatus and Recording Medium

16. Liu et al., US-5,398,068 Method and Apparatus for determining motion vectors for image sequences

Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JESSICA ROBERTS whose telephone number is (571)270-1821. The examiner can normally be reached on 7:30-5:00 EST Monday-Friday, Alt Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha D. Banks-Harold can be reached on (571) 272-7905. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Marsha D. Banks-Harold/
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